

# INTERCONTINENTAL TO LEAD THE WORLD IN FURS

AMERICA is to lead the world in furs. Henceforth the United States is to do so, and to tell her own sealings, and with her own sealings. A factory is now being built for this purpose in St. Louis, Mo., which expects to be in operation within a month with experts and a trained staff of operatives.

Once this brand-new industry is fairly launched, St. Louis may proudly claim the distinction of being the center of the fur trade of the world. Already ranking third among the fur markets, circumstances arising from the European war have conspired to place the crown of fur leadership upon the brow of that city, with a yearly value that promises ten to twelve million dollars.

Soon the lovely sealings, whose prohibitive cost has kept them away from the reach of the ordinary purse, even when the chic and the fashion-stricken wide apart, must perforce descend from their dizzy heights as fortune's favored tax, the label of wealth and affluence, and be found upon the gift list of the many instead of the favored few.

Because of the increase of population that has steadily pioneered into the remotest wooded wildernesses of the country, encroaching more and more upon the natural habitat of the fur-bearing animals and reducing their breeding places, furs have steadily diminished and their prices have correspondingly soared, until the necessity of fur garments of fine quality has become the exception rather than the rule, save among the wealthy.

Though the trappers have penetrated farther and farther into the uninhabited sections of the north and have reached their efforts to increase their yearly collection of pelts it has been lower since the supply met the demand, and the result has been that many inferior skins have been used as substitutes.

The fact that the natural production of first-class furs was in danger of exhaustion has caused the government to take drastic measures to conserve its seals and to go into fur farming upon an extensive scale as soon as it was demonstrated that various animals could be sufficiently domesticated for this purpose. This has now assumed the proportions of a vast industry that is worth millions of dollars annually to the government, as was demonstrated most forcibly by the recent auction of government furs, October 21, 1915, at St. Louis, Mo., when \$61,214.59 came to the United States treasury from six skins, all but seventy-five of which were fox skins.

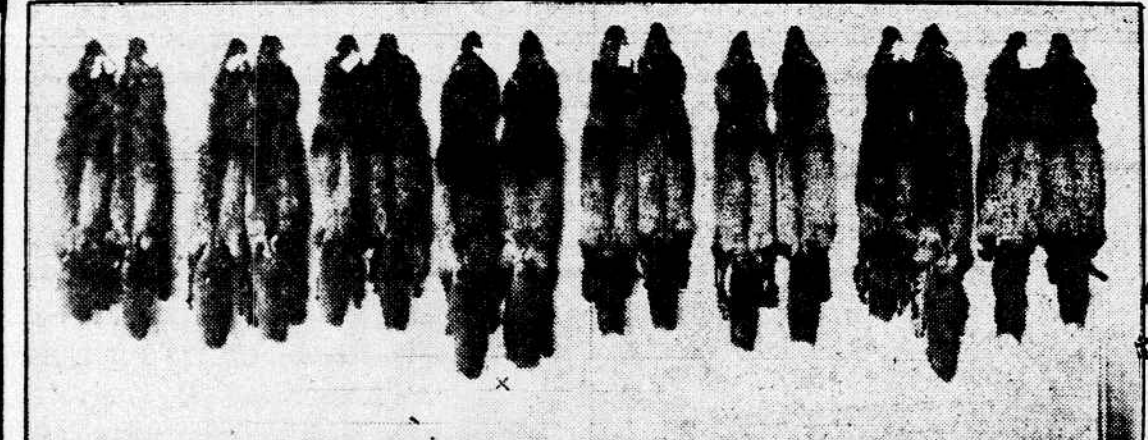
Fox farming, by the way, is mostly incidental to the main fur industry fostered by the government, which is that of the seal raising. Seventy heavier skins which brought \$392.50, were confiscated by the authorities because they were taken during the closed season, and the balance of the stock, but one at auction were blue and white fox skins, for which record prices were obtained. Sixty-five white foxskins brought \$1,586 and the 512 blue foxskins the sum of \$3,222.

Immediately after the government skins were disposed of silver foxskins were sold at fabulous prices. One pair of Alaskan silver fox pelts brought \$2,610 and other pairs brought from \$1,270 to \$1,750 each to \$1,000.

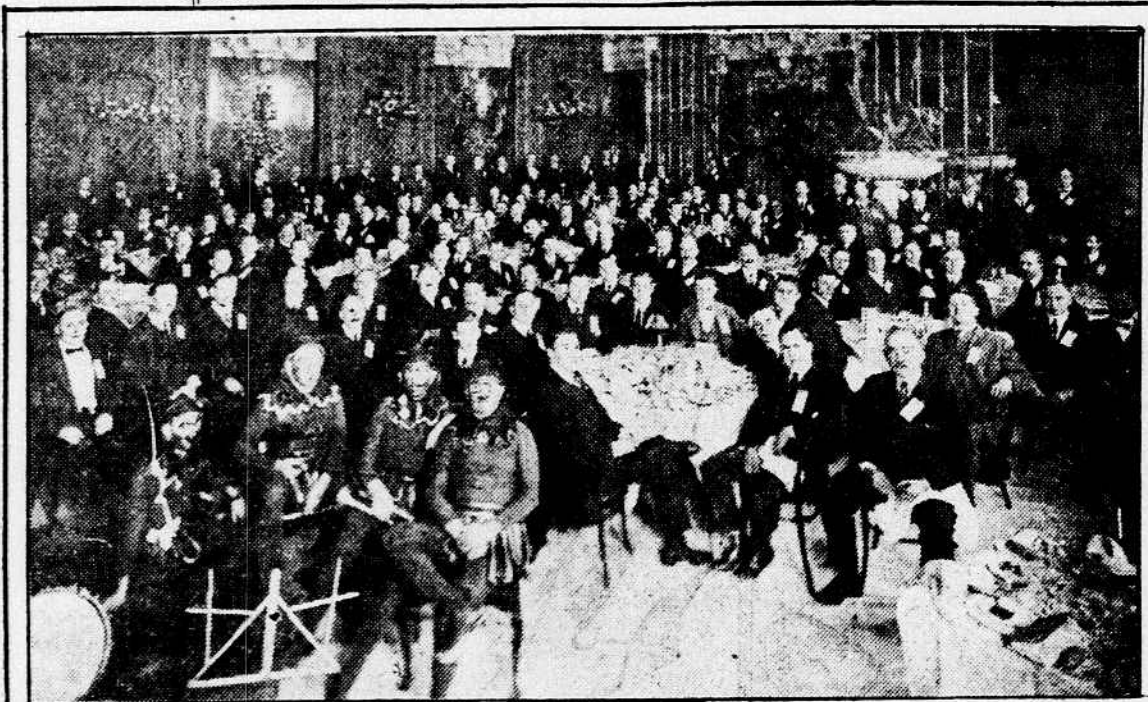
No sealings were offered at the auction, and the reason was most significant in view of the fact that the United States is the greatest fur-producing country in the world and the same time the most extensive purchaser of the finished fur.

The reason is not hard to find when it is remembered that St. Louis is to be the great fur market of the world, so long the autocrat of the earth, as the selling place, virtually all the raw fur coming to the world's commerce. The high-society lion has given place to the American eagle, for the standard of exchange in the world's commerce is the American dollar, which is drawing the world's trade to America.

Then, too, Leipzig, Germany, in the past the largest buying and distribut-



EIGHT FINE PAIR OF SILVER FOXES; THE ONES MARKED (X) BROUGHT \$2610. AT GOVERNMENT AUCTION SALE. ©FUNSTON BROS. CO.



SIXTH ANNUAL BANQUET OF THE ST. LOUIS FUR TRADE IN HONOR OF THE VISITING BUYERS TO THE PUBLIC AUCTION FUR SALE



SEA OTTER, BEAVER, LYNX AND ERMINE ON DISPLAY AT THE FUNSTON SALE, ST. LOUIS

ing market for furs, will scarcely, for a long time at least, care to market in London for her fur supplies, because of the greater value of the fur in the relations of the two countries. Leipzig has also been a large purchaser direct from Russia, which is also a great fur-producing nation.

Both America and Russia, as the greatest fur-producing countries of the earth, have heretofore sent all of their surplus furs to London to be sold at auction; and Leipzig has been the principal purchaser. After the war is over, it is unlikely that Russia will care to immediately resume the trading relations of the past, and the plan of this government is to take advantage of this psychological moment in the general upheaval of commerce and to concentrate the surplus of American furs in the St. Louis market, then to endeavor to draw to it also the surplus of Russian furs.

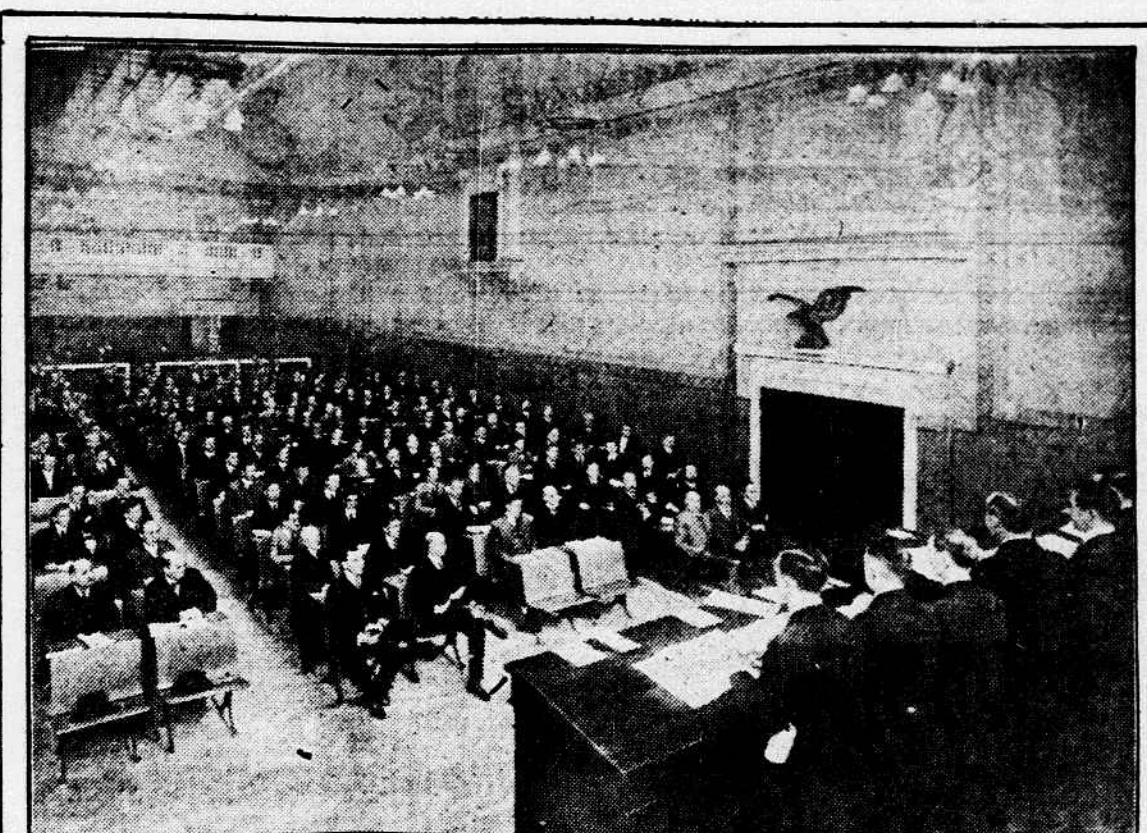
By marketing the world's supply of furs in St. Louis, a large attendance of buyers from foreign countries will be attracted, among them, undoubtedly, the buyers from Leipzig. Russia will be glad to have her furs sold here in a reach the attention of the world's buyers, so she may get the best price for them. Such is the scheme.

The government, which is constantly working to enlarge the output, enhance

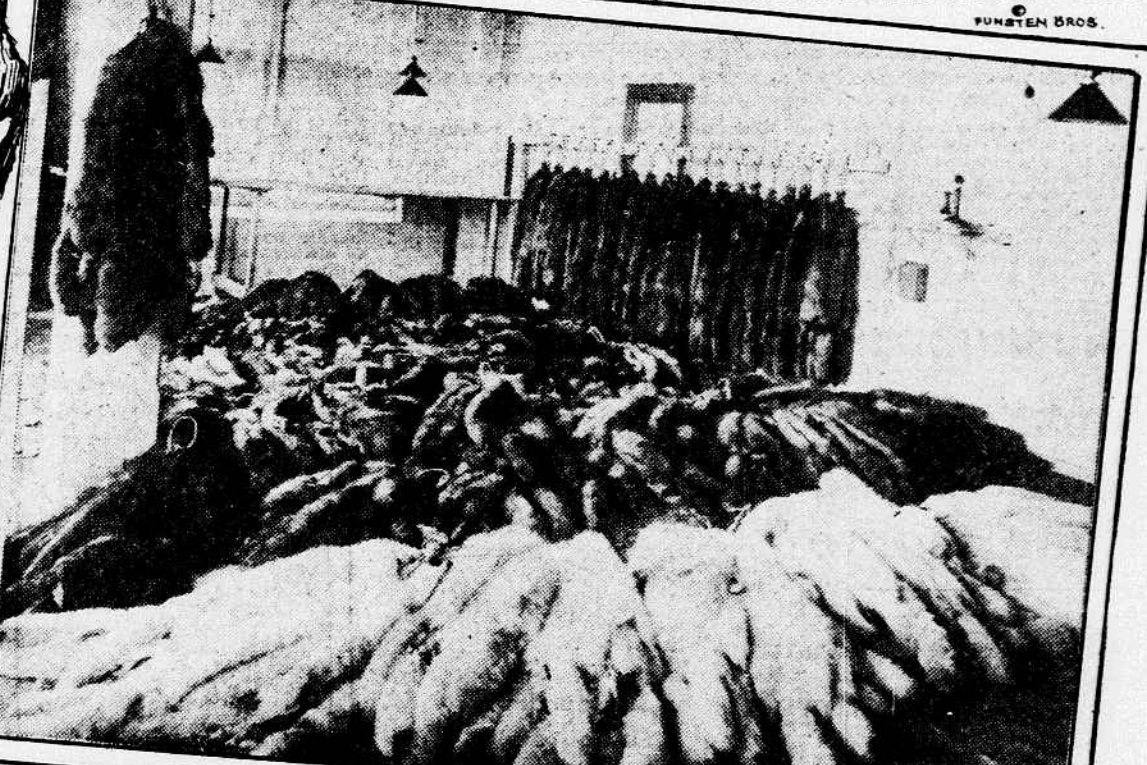
the value of the products and increase the industries of the United States, has granted the fur trade the right of commercial disruption to establish definitely at St. Louis a market for its own furs. Moreover, it has concluded to see to it that all profit remains in the country. To this end it has entered into a limited contract with Funston Brothers & Co. of St. Louis, who

conducted the recent auction, to sell at auction to all buyers who may come to the city for sealings for the next five years.

A consideration of this contract is that, this country is to see that the sealings are dyed and dressed in the United States before selling them; and a few sealings that have up to the method known to the fur trade. Hence



PUBLIC AUCTION SALE OF THE U.S. GOVERNMENT'S AND OTHER FURS AT ST. LOUIS IN OCTOBER



U.S. GOVERNMENT'S BLUE AND WHITE FOXES; GRADED AND BUNDLED, READY TO SHOW TO BUYERS

This is done at this particular time in order to prevent the deterioration of about 8,000 sealings which the government now has in cold storage for safe keeping.

Concerning this new venture, to which such impetus has been given, Dr. Hugh M. Smith, director of the bureau of fisheries, said recently:

"It is but natural that the United States should sell its own sealings, and dye and dress its own furs. This is something which it has never done. We have always sent our sealings to London, there we have paid to have them dyed and dressed and have brought them home again, paying duty on their return and other charges on account of double transportation. All of these various charges added about 32 per cent to the cost of the raw skins, so that by the time the fur came back to America, ready to be made up into garments, it cost more than one-half above its price when purchased as a raw skin."

"With this new plan to sell and prepare our furs right here in this country, we not only establish a new industry for our people to learn, but we also expect that it will return greater profit to the government on the sale of the skins, while at the same time reducing the expenses incident to the dyeing and dressing. And the finished fur will undoubtedly be sold to the American consumer or purchaser at a lower cost than has ever before been the case."

The recent auction in St. Louis, in the first public auction of government furs to occur in this country and marks an epoch in the commercial history of the land. Two years ago, however, there was a private sale of a few sealings that led up to the plan now in operation. It was a success, and better prices were obtained than had been secured abroad; the government thus got more for its furs and the process of selling cost less. Last year there was no sale, because there was no market, and Congress authorized the withholding of it. This sale, the other month, attracted buyers from Germany, France, England, Australia and Canada."

The raising of foxes and the seal fur production are both enterprises carried on by the government by virtue of its ownership of the Alaskan islands, which are small scraps of land in Bering sea, 200 miles west of the Alaskan mainland and 200 miles north of the Aleutian Islands. These islands, which stretch out in the north Pacific toward the coast of Asia. These islands, two of which are more than twelve miles long, and two others mere heaps of rock, comprise the summer home and breeding place of the largest herd of seal in the world. They are also the home of the rare blue foxes, found elsewhere only occasionally.

Although the value of these islands was appreciated, because of the seal, when Alaska was purchased from Russia, it was thought best to leave the seal raising in the hands of experienced sealers, and the seal fur rights were thereupon leased. For a number of years this arrangement lasted, but in 1910 the government renewed and the government proceeded to manage, through the bureau of fisheries, the affairs of the seal fur. Investigation showed a tremendous industry that needed a more intelligent management to develop its possibilities.

For instance, under the old leasing system, the world in 1910 have secured \$13,000, whereas they actually did turn into the Treasury \$400,000. A

closed season for the purpose of building up the depleted seal herd was abolished by an act of Congress in 1911, in turn, was abolished by the treaty in December of 1911, the United States, Great Britain, Russia and Japan, the only countries engaged in the sealing industry, by the terms of this treaty the United States, in return for the stopping of all sea sealing, is to have entire control of the land sealing and to pay to Great Britain and Japan 15 per cent each of the total skins taken. It is expected that killing of the seal herd will shortly be resumed. The two large islands have been the stopping places of large packs of foxes which live part of the year on the great number of eggs and birds that swarm over them in the nesting season. The balance of the year they have subsisted on the remains of the slaughtered seals that were killed for their hides. Thus, in great measure, the fox herd has been closely associated with and in some respects dependent upon the sealing, and during the closed season it suffered considerably. It is believed that when the killing of the seals is resumed the fox packs may be increased materially.

Fur farming came about through the scarcity of the first-class fur-bearing animals, and the blue fox was the first animal to be scientifically reared in this way. The results of the first experiments were a universal surprise, for finer skins were obtained from the captive bred than have ever been caught in the remotest wilderness. The reason for this is that the fur of the blue fox or arctic fox reaches perfection in the winter time, when it is the longest. The wild animal frequently sports his beautiful coat by his thoughtless habit of basking in the sun. While the sun does not hurt his fur, the warmth of his body melts the ice, which speedily freezes again and incloses the tips of the longest of his hairs. When he rises these are pulled out and left behind. But when these animals are kept within the inclosures provided for them on the fur farms, it is said that they do not thus lose their hairs.

According to a recent bulletin issued by the Department of Agriculture, the name "silver fox" as ordinarily used by furriers includes the dark phases of the ordinary red fox, called silver, silver gray, silver black or black. The market value of the skins of the various of the animal. The beauty and scarcity of the silver fox have made it the most valuable of fur animals.

The silver fox was at first successfully domesticated in 1894 on Prince Edward Island. In 1910 the pelts from ranch-reared foxes brought higher prices than those of the wild animals, the average being over \$1,300 each. The rates for live animals for the stock farms soared into prohibitive figures, but the European war has brought them down considerably. The high values placed upon these animals have resulted in a close study of them in the different stages of domestication, which has disclosed facts of great value in fox farming.

A fox ranch should be situated where it will have good drainage and be shaded in part by trees. Each pair of foxes should have a runway of about 2,500 square feet. They thrive on a diet that is varied, including meat, fish, bread, mush, milk, etc. The reproductive period is about ten years and the average litter contains four cubs. They bear their captivity well and are not difficult to care for.

Because of the exceedingly high value set upon silver foxes, many precautions are taken to avoid their loss. In some of the larger, more prosperous farms the animals are regularly examined by a doctor and guarded by watchmen, bulldogs and burglar alarms. Cats are kept on hand to act as foster-mothers to orphan cubs. Fox hounds are trained to catch and hold, without injuring them, any runaway foxes that have escaped, and bloodhounds are employed to track thieves that would steal them.

Most surprising of all of the data to be had on the subject of fur farming, fur buying, etc., is that which concerns fur selections. For it would indeed be a wise animal that would know its own hide under cover the names and guises by which it is made to masquerade.

Much red fox goes to big stores as black fox, and all of the other fur-coated animals of lesser value are utilized in the making of garments called by a name of an animal that they probably never even met in the whole course of their lifetime. In the instance, the family house cat, the dog, rabbit or goat.

Of them all, however, the Angora goat takes the prize for the variety of uses to which it is put. Many of the buggy robes, sold as wild animal fur, are nothing more than Angora goat skins dyed black. Many of the monkey-skin muffs and coats worn by women are only straight-haired Angora goat skins dyed black. There is no other animal that can supply the great variety of demands for substitutes for high-class furs better than the Angora goat. When its hair is one month old it is scarcely tussled from astrakhan, after it has been dyed black. Angora goat skins can be made to represent either the polar or the black bear, according to the kind of dye used.

Another use for the Angora goat skin is in the making of lace trimmings, which command a price of one-half cent to \$100 a yard. The goat skin is cut into strips in the making of floor rugs, etc. The market value of loose goat skins is about \$1.00 a skin. Attempts are being made to breed skunk, mink and sable by means of Angora goat skins. These attempts are successful and unless these plans are successful it is claimed that these animals are doomed to extinction. These animals are domesticated upon in captivity in the chin-chilla.

## Extraordinary Features of "Keeping House" for Thousands of Bacteria

MISS AGNES QUIRK of the Department of Agriculture Has Some Exacting Duties, But She Does Not "Keep" the Ordinary Sort of House—Feeding Bacteria a Painstaking Task—The Important Media—Scientific Dishwashing—Her Methods Explained—Bacterial Diseases of Plants Studied.

HOW would you like to be such an exacting housekeeper that you would wash your dishes twice and rinse them in distilled water; use glass cooking utensils because they may be kept cleaner than any others; measure all of the ingredients of your food to a portion of a grain or gram, and keep a detailed account of all your cooking so that you could tell without fail how many ounces of heat or drops of water were put into yesterday's beef bouillon?

On the face of it this seems so bothersome that it is difficult to believe that any one would possibly have the patience to keep house in such a way. Yet Miss Agnes Quirk of the Department of Agriculture follows a procedure of this kind every day in the painstaking manner that it requires, and thinks little about its extraordinary features.

As scientific housekeeper par excellence of the National Capital, Miss Quirk has charge, under Dr. Erwin P. Smith, of the bacteriological laboratory of the department of plant pathology, and it is her duty to supply the food material for the bacteria which are the subjects of her laboratory studies. She has three assistants, who aid her in running her kitchen; nevertheless she personally prepares all of the bacterial media—such kind of foodstuff is scientifically called.

Bacterial diseases of plants are studied in the laboratory of plant pathology, and all sorts of experiments are made in each of the individual cases to determine the nature of the organisms which cause the diseases. For this reason, an enormous amount of bacterial media is used by

the pathologists during a year. To be exact, 3,500 test tubes full are needed every month, and as a variety of media are employed it is necessary that Miss Quirk follow the most exact methods.

Her workroom is a combination scullery, kitchen, pantry, stock cupboard and apothecary shop. Here, in her double capacity of chief cook and head nurse in this pathological establishment, she follows scrupulously the directions given in regard to the bacterial diet.

A glance at Miss Quirk's pantry will reveal a stock of prepared food, some of which differs little in name or composition from that which appears on the table in any ordinary home. But of agar is one of the most popular media. It is a gelatinous substance, made of corn meal, which might be considered the bacteria's bread—potatoes, beans, carrots and other vegetables. Fruits are not neglected in this ultra-scientific kitchen. Apples, oranges, lemons, and bananas are but three of a number of fruit preparations which might qualify as bacterial desserts.

These media are a few of the thousands which are kept at hand ready for use. Of course, in many instances purely chemical preparations, as the layman understands them, are also made as bacterial nutrients. For this reason, Miss Quirk's apothecary shop is well stocked. It fills one entire wall of her workroom and contains samples of all the materials of high-sounding names which are associated with scientific laboratories.

In Miss Quirk's stockroom are found her imported German cooking utensils of all shapes and sizes—glass beakers, funnels and flasks, which are blown especially to resist intense heat and the solvent action of water, acids and alkalis, for, curiously enough, common glass is quite soluble and substances dis-

solved from it may affect the quality of the culture media.

The appearance of these brilliant glass utensils as they are arranged on the shelves might excite the envy of an old-fashioned housekeeper, whose orderly kitchen, with its rows of polished pewter plates, was a chief source of pride.

Further carrying out this idea of exquisite cleanliness, Miss Quirk uses glass tubes as spoons and glass test tubes as preserving jars. The latter she plugs with tufts of cotton after they are filled with media to keep out all contaminating air and arranges them in orderly fashion in the set of shelves which she calls her pantry. And here is another strange thing—a tuft of cotton will filter out the germs floating in the air.

A glance at the scullery is one of the most interesting parts of her menage, not for its appearance—which differs little from any other room used for a similar purpose—but for the process which is followed there in washing the soiled dishes.

When the test tubes of media are discarded by the pathologists after they have served their purpose in the experiments with the bacteria and fungi they are sent to the scullery and washed with a solution of soda, which cuts away and disinfects all bits of food adhering to the sides and bottom of the tubes.

They are then washed in alcohol to remove the traces of the acid and finally are rinsed with distilled water to remove the alcohol. The fourth step in this intricate dishwashing process is by no means the least important. After each test tube, beaker or petrie dish is rinsed and dried it is wrapped in brown paper and baked for an hour and a half at 100 degrees centigrade to complete its sterilization.

The reason of such exact care, Miss Quirk explains, is obvious. The organisms



MISS AGNES QUIRK.

which are studied are so minute that their characteristics are oftentimes difficult to observe; if any other living matter contaminates them the results of the different experiments are affected and the work rendered useless.

"My stove," Miss Quirk continued, examining them the results of the different experiments are affected and the work rendered useless.

panied the interviewer through her kitchen, "are a bit unusual. In addition to the burner burners, which correspond to any ordinary flame, and which I use for the simple boiling process, I have three kinds of ovens which are my steamers and bakers. The autoclaves, which can be regulated to any high temperature and provide a quick means of sterilization, follow heating below sufficient, the dry oven mentioned as used for sterilizing glassware, and the steamers, which give a temperature of 100 degrees centigrade; in these the culture media must be heated four times at intervals of twenty-four hours to make certain that it will remain sterile."

During her connection with the laboratory, Miss Quirk has designed a piece of apparatus which is calculated to be a time saver. Her design was executed at the factory which supplies this line of material, and is a combination of glass tubing arranged in such a way to support funnels and ordinary tubes for measuring off amount of media to fill test tubes.

"In order to illustrate how exact my methods must be," said Miss Quirk, "I will give you the steps which I follow in the preparation of one of the media—beef agar, for instance."

"I use on an average of six pounds of beef a day. I proceed to make it according to the standard recipe for beef bouillon, with one part of the minced beef and two parts of water, giving the meat a water bath at a temperature of 100 degrees centigrade. This draws out the blood, but will not coagulate the albumen in the meat."

"Then I put the jar into the steamer and increase the temperature so that the albumen may be coagulated and all of the meat juices be extracted. At this point the liquid is concentrated to beef tea. But the bacteria are fastidious in the matter of their food, and I must follow a few more steps before the material is ready for them."

"After I filter the fat by pouring the liquid through a funnel of imported filter paper and make up the proper proportions of lost water to assure the original measure. After standardizing it according to a scale to determine its acid and alkaline properties, I am ready to add chemicals according to the taste of the bacteria, which completes the process."

"This, then, is my method of cooking meat," Miss Quirk went on to say. "In many cases the pathologists desire to see the reaction of bacteria and fungi on cooked fruits and vegetables. In such cases I wash the fruit in distilled water and dry it. Then pieces are

placed in the test tubes; these are sterilized and plugged and may be kept for use. I am constantly on the look-out for any new method of sterilization or for the right way and better method or easier systems."

Miss Quirk was asked if she had any hints to pass along to housekeepers that might be of help in kitchen work. "I am afraid I can advise you nothing along these lines," she replied, "must be very general. I am sure that successful cooking and housekeeping, as with other things, depends on the individual. However, three things appear to me as significant in the housekeeper's way to success. They are cleanliness, care and attention to small details. These are vague terms, I know, but even a novice should realize that they are the most important requisites to domestic and culinary success."

### European Travel After the War

THE return of peace will not mean the resumption of international travel in the same volume in which it flowed from country to country. International travel, or the tourist trade, had developed into one of the important branches of the world's trade. It is a trade that is of especial consequence to the passenger steamship lines, railways, hotels, shops of many classes and the automobile service. Hundreds of millions of dollars change hands annually on account of the tourist trade, and better international acquaintance has resulted. And in this war, because of its unparalleled extent and intensity and the new and hitherto unthought-of agencies employed in international bitterness is unusually deep and may be lasting to an unusual degree.

The citizens of the world have given thought to that aspect of the matter that it is considerable. The European war has engendered international hate and furries, and it has been the record of history that such sentiments long survive after the close of actual hostilities. And in this war, because of its unparalleled extent and intensity and the new and hitherto unthought-of agencies employed in international bitterness is unusually deep and may be lasting to an unusual degree.

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which, it is claimed, has been taught in the public schools of Germany, coupled with the slaughter of non-combatants in the countries by aerial attacks and the unprecedented destruction of private property on land and at sea, has made it impossible for the tourist trade to be as popular as it was before the war. It is probable that in the future it will be more popular.

A writer on this subject has said that "suspicion and abhorred memories will leave the world two Europes, the one detesting the other. Inevitably it will mean a narrowing of culture; it will limit the study of languages; it will hamper the study of art; it will be a distinct detriment to the cross-fertilization that has so greatly benefited mankind. At the same time it will tend to deepen old prejudices and foster new ones, as there is no spring of international dislike more fertile than international misinterpretation growing out of international unacquaintedness."

There is no one aspect of the case which is not being overlooked by students of travel. It is certain that a flood tide of American tourist travel will set toward Europe at the end of hostilities. Reports of tourist agencies show that this will be the case. The battlefields and shell-wrecked cities and war-blighted villages will be an appealing spectacle that will beckon tens of thousands of Americans to Europe.